

SUPPORT FOR THE AMENDMENTS

Newly-added Claims 12-22 are supported by the specification and the original claims. Accordingly, no new matter is believed to have been added to the present application by the amendments submitted above.

REMARKS

Claims 12-22 are pending. Favorable reconsideration is respectfully requested.

The present invention relates to a positive radiation-sensitive resin composition comprising a polymer containing structural units represented by formula (1) and/or (2) and formula (3). See independent Claims 12 and 22; component (A). The composition also contains (B) a component which generates an acid by irradiation with radiation and (C) an organic solvent.

Using the claimed composition, a pattern that becomes a mold for electroplating is formed with fidelity to the mask dimension. In addition, the shape of a pattern that becomes a mold can be accurately transferred even in the electroplating step, and the composition can form a plated shaped article having fidelity to the mask dimension and has excellent sensitivity and resolution.

The rejection of the claims under 35 U.S.C. §102(b) over Hiroyuki is respectfully traversed.

Hiroyuki discloses positive-type resins that are used for the production of semiconductor integrated circuits. The resins have a high sensitivity, high resolution, high adhesion to a substrate, and a high affinity to an alkaline developer. The resin is typically used as a thin layer having a thickness of 0.2 to 2 μm .

The reference describes a polymer (A), an acid generator (B) and a solvent (C). The polymer (A) comprises three components; a phenolic hydroxyl group containing unit (3) an acid-dissociable group containing unit (1) and a lactone containing unit (2). The polymer (A) of the present application does not have unit (2) of Hiroyuki. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §102(b) over Przybilla is respectfully traversed.

Przybilla describes a polymer containing units of the formula I where R1 is an acid-cleavable benzyl, trialkylsilyl, aikoxycarbonyl, tetrahydropyranyl or tetrahydrofuryl group. The structural unit (a) represented by the formula (1) and/or (2) of the present invention does not contain an acid-cleavable group. The structure of the present application can be expressed as the formula I of Przybilla patent where R1 is hydrogen. The polymer (A) of the present invention does not contain formula I of Przybilla. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §103(a) over Hiroyuki over Ohta et al. is respectfully traversed.

As discussed above, polymer (A) of the present application does not have unit (2) of Hiroyuki.

Ohta describes a positive type radiation-sensitive resin composition comprising a polymer (A) having an acid-dissociable group, and acid generator (B) and an organic solvent (C). The examples of polymer (A) are shown as A-1 to A-7. None of those polymer (A) contains the structural units (a) represented by the formula (1) and/or (2) of the present invention.

In view of the foregoing, Hiroyuki over Ohta et al. fail to suggest the claimed composition. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §103(a) over Hiroyuki over Jeon et al. is respectfully traversed.

As discussed above, polymer (A) of the present application does not have unit (2) of Hiroyuki.

Jeon describes a copolymer of formula 1. All the components of the formula 1 are styrene derivatives. The copolymer does not contain the structural units (a) represented by the formula (1) and/or (2) of the present invention. In addition, formula 1 does not contain the monomer selected from the list recited in the amended claims of the present invention.

In view of the foregoing, the combination of Hiroyuki and Jeon et al. fails to suggest the claimed composition. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §103(a) over Ohta et al. and Pryzbilla is respectfully traversed.

As discussed above, the polymer (A) described by Ohta et al. lack the structural units (a) represented by the formula (1) and/or (2) of the present invention and polymer (A) of the present invention does not contain formula I of Przybilla. For that reason, those references, taken in combination, fail to suggest the claimed composition. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejections of the claims for obviousness-type double patenting over application serial Nos. 11/677,339 and 11/497,300 are believed to be obviated by the Terminal Disclaimer submitted herewith. Accordingly, withdrawal of these grounds of rejection is respectfully requested.

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Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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